

Title (en)  
Memory device

Title (de)  
Speicheranordnung

Title (fr)  
Dispositif de mémoire

Publication  
**EP 0834882 A3 19990804 (EN)**

Application  
**EP 97307125 A 19970915**

Priority  
GB 9620375 A 19960930

Abstract (en)  
[origin: GB2317722A] To reduce wear on a write-few Flash memory changes are written to the Flash memory in batches. Changes to be made are held in RAM and written to the Flash memory depending on their number, their priority levels and the time intervals elapsing between receipt of changes by the RAM. The Flash memory manager monitors the number of times that its blocks are erased and can copy data from the most erased block to the least to even up wear since it is likely that the data transferred from the most erased block is likely to be updated often. The Flash memory manager has an interrupt handling routine which operates during erase or write operations. If an erase operation is in progress, it is halted and reading is enabled. If a write operation is in progress, the interrupt is suspended until the current word has been written at which time memory reading is enabled. If more words remain to be written the write operation is resumed with the next word after the interrupt has been processed.

IPC 1-7  
**G11C 11/00**

IPC 8 full level  
**G11C 16/02** (2006.01); **G06F 12/00** (2006.01); **G06F 12/02** (2006.01); **G11C 16/10** (2006.01); **G11C 16/34** (2006.01); **H04M 1/724** (2021.01)

CPC (source: EP US)  
**G06F 12/0246** (2013.01 - EP US); **G11C 16/102** (2013.01 - EP US); **G11C 16/349** (2013.01 - EP US); **G11C 16/3495** (2013.01 - EP US); **G06F 2212/7211** (2013.01 - EP US); **H04M 1/724** (2021.01 - EP US)

Citation (search report)  
• [X] EP 0398654 A2 19901122 - SEIKO EPSON CORP [JP]  
• [XY] EP 0392895 A2 19901017 - SUNDISK CORP [US]  
• [Y] EP 0391871 A2 19901010 - IBM [US]  
• [A] EP 0579418 A2 19940119 - IBM [US]  
• [A] WU M ET AL: "ENVY: A NON-VOLATILE, MAIN MEMORY STORAGE SYSTEM", ACM SIGPLAN NOTICES, vol. 29, no. 11, 1 November 1994 (1994-11-01), pages 86 - 97, XP000491727

Cited by  
EP2273373A1; WO2006069439A1; EP0887735A3; EP1286267A1; EP1031929A3; GB2384072A; GB2384072B; EP1832131A4; US7539905B2; WO2004027615A3; US8266444B2; US8738930B2; US7603511B2; US8024510B2

Designated contracting state (EPC)  
AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)  
**GB 2317722 A 19980401**; **GB 2317722 B 20010718**; **GB 9620375 D0 19961113**; DE 69710665 D1 20020404; DE 69710665 T2 20021121; EP 0834882 A2 19980408; EP 0834882 A3 19990804; EP 0834882 B1 20020227; JP H10133940 A 19980522; US 2001002475 A1 20010531; US 6301635 B2 20011009

DOCDB simple family (application)  
**GB 9620375 A 19960930**; DE 69710665 T 19970915; EP 97307125 A 19970915; JP 26433497 A 19970929; US 93798697 A 19970926